

US EPA ARCHIVE DOCUMENT



**ANALYTICAL RESULTS**

Prepared for:

Chevron  
5000 State Route 128  
HOOVEN OH 45033

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425

September 30, 2009

Project: Hooven Barrier Monitoring Network

Samples arrived at the laboratory on Wednesday, September 23, 2009. The PO# for this group is 0015039270 and the release number is 50008931. The group number for this submittal is 1163088.

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
Equipment_Blank,091709 Grab Water Sample	5784231
MW-135S,091709 Grab Water Sample	5784232
MW-135I,091709 Grab Water Sample	5784233
MW-135D,091709 Grab Water Sample	5784234
BMW-1S,091709 Grab Water Sample	5784235
BMW-1I,091809 Unspiked Grab Water Sample	5784236
BMW-1I,091809MS Grab Water Sample	5784237
BMW-1I,091809MSD Grab Water	5784238
BMW-1I,091809DUP Grab Water Sample	5784239
BMW-1D,091809 Grab Water Sample	5784240
BMW-2D,092109 Grab Water Sample	5784241
BMW-2I,092109 Grab Water Sample	5784242
MW-136I,092109 Grab Water Sample	5784243
MW-136D,092109 Grab Water Sample	5784244
BMW-2S,092109 Grab Water Sample	5784245
MW-137I,092209 Unspiked Grab Water Sample	5784246
MW-137I,092209MS Grab Water Sample	5784247
MW-137I,092209MSD Grab Water	5784248
MW-137I,092209DUP Grab Water Sample	5784249
BD-1,092209 Grab Water Sample	5784250
BMW-3D,092209 Grab Water Sample	5784251
BMW-3I,092209 Grab Water Sample	5784252
BMW-3S,092209 Grab Water Sample	5784253



MW-137D,092209 Grab Water Sample	5784254
BD-2,092209 Grab Water Sample	5784255
Equipment_Blank,092209(P) Grab Water Sample	5784256
Equipment_Blank,092209 Grab Water Sample	5784257
Trip_Blank Water Sample	5784258

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Trihydro Corporation	Attn: Trihydro Database
ELECTRONIC COPY TO	Trihydro Corporation	Attn: Tim Gunn
ELECTRONIC COPY TO	Trihydro Corporation	Attn: Matthew Mitchell

Questions? Contact your Client Services Representative  
Katherine A Klinefelter at (717) 656-2300

Respectfully Submitted,



Marla S. Lord  
Senior Specialist



**Sample Description:** Equipment\_Blank,091709 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784231  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/17/2009 10:20 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NEE17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 07:43	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 07:43	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:06	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:06	John W Yanzuk II	1





# Analysis Report

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**Sample Description:** MW-135S,091709 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784232  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/17/2009 11:10 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

N135S

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 10:48	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 10:48	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:14	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:14	John W Yanzuk II	1





# Analysis Report

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**Sample Description:** MW-135I,091709 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784233  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/17/2009 11:55 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

N135I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 11:34	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 11:34	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:17	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:17	John W Yanzuk II	1





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**Sample Description:** MW-135D,091709 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784234  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/17/2009 13:40 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

N135D

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 12:21	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 12:21	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:20	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:20	John W Yanzuk II	1





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**Sample Description:** BMW-1S,091709 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784235  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/17/2009 15:00 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-1S

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 11:57	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 11:57	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:23	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:23	John W Yanzuk II	1



**Sample Description:** BMW-1I,091809 Unspiked Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784236  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/18/2009 12:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-1I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 08:30	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 08:30	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:01	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:01	John P Hook	1





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**Sample Description:** BMW-1I,091809MS Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784237  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/18/2009 12:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

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NE-1I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
		<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	21	0.5	1
06291	Chlorobenzene	108-90-7	21	0.8	1
06291	Ethylbenzene	100-41-4	21	0.8	1
06291	Toluene	108-88-3	22	0.7	1
06291	Xylene (Total)	1330-20-7	63	0.8	1
<b>Metals Dissolved</b>					
		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.157	0.0072	1
07055	Lead	7439-92-1	0.146	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 11:11	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 11:11	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:11	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:11	John P Hook	1



**Sample Description:** BMW-1I,091809MSD Grab Water  
Barrier Monitoring Network

LLI Sample # WW 5784238  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/18/2009 12:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-1I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	19	0.5	1
06291	Chlorobenzene	108-90-7	19	0.8	1
06291	Ethylbenzene	100-41-4	18	0.8	1
06291	Toluene	108-88-3	19	0.7	1
06291	Xylene (Total)	1330-20-7	55	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.158	0.0072	1
07055	Lead	7439-92-1	0.144	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 09:16	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 09:16	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:14	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:14	John P Hook	1





# Analysis Report

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**Sample Description:** BMW-1I,091809DUP Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784239  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/18/2009 12:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-1I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Metals Dissolved</b>					
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:08	John P Hook	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:08	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1



**Sample Description:** BMW-1D,091809 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784240  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/18/2009 15:00 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-1D

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 09:39	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 09:39	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:34	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:34	John P Hook	1



**Sample Description:** BMW-2D,092109 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784241  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/21/2009 08:25 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-2D

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 10:02	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 10:02	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:38	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:38	John P Hook	1





# Analysis Report

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**Sample Description:** BMW-2I,092109 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784242  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/21/2009 08:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-2I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092681AA	09/25/2009 10:25	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092681AA	09/25/2009 10:25	Kerri E Koch	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:41	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:41	John P Hook	1





# Analysis Report

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**Sample Description:** MW-136I,092109 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784243  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/21/2009 13:50 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

N136I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 22:21	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 22:21	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:44	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:44	John P Hook	1



**Sample Description:** MW-136D,092109 Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784244  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/21/2009 10:50 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

N136S

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 22:44	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 22:44	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:48	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:48	John P Hook	1



**Sample Description:** BMW-2S,092109 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784245  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/21/2009 10:05 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

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Discard: 11/30/2009

HOOVEN OH 45033

NE-2S

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 23:07	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 23:07	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848004	09/29/2009 19:51	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848004	09/28/2009 09:15	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848004	09/29/2009 19:51	John P Hook	1





# Analysis Report

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**Sample Description:** MW-137I,092209 Unspiked Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784246  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/22/2009 11:55 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

N137I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 21:11	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 21:11	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:00	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:00	John P Hook	1



**Sample Description:** MW-137I,092209MS Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784247  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/22/2009 11:55 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

N137I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	22	0.5	1
06291	Chlorobenzene	108-90-7	22	0.8	1
06291	Ethylbenzene	100-41-4	22	0.8	1
06291	Toluene	108-88-3	22	0.7	1
06291	Xylene (Total)	1330-20-7	65	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.178	0.0072	1
07055	Lead	7439-92-1	0.167	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 21:34	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 21:34	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:10	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:10	John P Hook	1



**Sample Description:** MW-137I, 092209MSD Grab Water  
Barrier Monitoring Network

**LLI Sample #** WW 5784248  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/22/2009 11:55 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

N137I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS Volatiles</b>					
	<b>SW-846 8260B</b>		<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	21	0.5	1
06291	Chlorobenzene	108-90-7	21	0.8	1
06291	Ethylbenzene	100-41-4	21	0.8	1
06291	Toluene	108-88-3	21	0.7	1
06291	Xylene (Total)	1330-20-7	63	0.8	1
<b>Metals Dissolved</b>					
	<b>SW-846 6010B</b>		<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	0.153	0.0072	1
07055	Lead	7439-92-1	0.155	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 21:57	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 21:57	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:13	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:13	John P Hook	1



**Sample Description:** MW-137I,092209DUP Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784249  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 11:55 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

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Discard: 11/30/2009

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N137I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>Metals Dissolved</b>		<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:07	John P Hook	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:07	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1





# Analysis Report

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**Sample Description:** BD-1,092209 Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784250  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/22/2009 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

NEBD1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 23:30	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 23:30	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:20	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:20	John P Hook	1





# Analysis Report

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**Sample Description:** BMW-3D,092209 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784251  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 09:15 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-3D

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 23:53	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 23:53	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:24	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:24	John P Hook	1





# Analysis Report

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**Sample Description:** BMW-3I,092209 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784252  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 10:05 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-3I

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/26/2009 00:16	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/26/2009 00:16	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:33	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:33	John P Hook	1





# Analysis Report

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**Sample Description:** BMW-3S,092209 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784253  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 11:05 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-3S

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/26/2009 00:39	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/26/2009 00:39	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:37	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:37	John P Hook	1





# Analysis Report

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**Sample Description:** MW-137D,092209 Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784254  
**LLI Group #** 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

**Collected:** 09/22/2009 13:15 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

N137D

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/26/2009 01:02	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/26/2009 01:02	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:40	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:40	John P Hook	1



**Sample Description:** BD-2,092209 Grab Water Sample  
Barrier Monitoring Network

**LLI Sample #** WW 5784255  
**LLI Group #** 1163088  
OH

**Project Name:** Hoooven Barrier Monitoring Network

**Collected:** 09/22/2009 by JH

**Account Number:** 11494

**Submitted:** 09/23/2009 09:00

Chevron

**Reported:** 09/30/2009 at 11:35

5000 State Route 128

**Discard:** 11/30/2009

HOOVEN OH 45033

NEBD2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/26/2009 01:25	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/26/2009 01:25	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848005	09/28/2009 19:43	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848005	09/28/2009 09:25	Denise K Conners	1
07035	Arsenic	SW-846 6010B	1	092681848005	09/28/2009 19:43	John P Hook	1



**Sample Description:** Equipment\_Blank,092209(P) Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784256  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 15:00 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NEEBP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	0.9 J	0.8	1
<b>Metals Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>		
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 20:02	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 20:02	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:26	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:26	John W Yanzuk II	1





# Analysis Report

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**Sample Description:** Equipment\_Blank,092209 Grab Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784257  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 15:15 by JH

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NEB22

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1
<b>Metals</b>	<b>Dissolved</b>	<b>SW-846 6010B</b>	<b>mg/l</b>	<b>mg/l</b>	
07035	Arsenic	7440-38-2	N.D.	0.0072	1
07055	Lead	7439-92-1	N.D.	0.0069	1

## General Sample Comments

This sample was filtered in the field for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 20:25	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 20:25	Sara E Wolf	1
07055	Lead	SW-846 6010B	1	092681848001	09/26/2009 02:29	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	092681848001	09/25/2009 14:59	James L Mertz	1
07035	Arsenic	SW-846 6010B	1	092681848001	09/26/2009 02:29	John W Yanzuk II	1



**Sample Description:** Trip\_Blank Water Sample  
Barrier Monitoring Network

LLI Sample # WW 5784258  
LLI Group # 1163088  
OH

**Project Name:** Hooven Barrier Monitoring Network

Collected: 09/22/2009 17:00

Account Number: 11494

Submitted: 09/23/2009 09:00

Chevron

Reported: 09/30/2009 at 11:35

5000 State Route 128

Discard: 11/30/2009

HOOVEN OH 45033

NE-TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC/MS</b>	<b>Volatiles</b>	<b>SW-846 8260B</b>	<b>ug/l</b>	<b>ug/l</b>	
06291	Benzene	71-43-2	N.D.	0.5	1
06291	Chlorobenzene	108-90-7	N.D.	0.8	1
06291	Ethylbenzene	100-41-4	N.D.	0.8	1
06291	Toluene	108-88-3	N.D.	0.7	1
06291	Xylene (Total)	1330-20-7	N.D.	0.8	1

## General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W092682AA	09/25/2009 20:48	Sara E Wolf	1
06291	TCL by 8260 (water)	SW-846 8260B	1	W092682AA	09/25/2009 20:48	Sara E Wolf	1



## Quality Control Summary

Client Name: Chevron

Group Number: 1163088

Reported: 09/30/09 at 11:35 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

## Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: W092681AA	Sample number(s): 5784231-5784238, 5784240-5784242							
Benzene	N.D.	0.5	ug/l	102		79-120		
Chlorobenzene	N.D.	0.8	ug/l	104		80-120		
Ethylbenzene	N.D.	0.8	ug/l	101		79-120		
Toluene	N.D.	0.7	ug/l	102		79-120		
Xylene (Total)	N.D.	0.8	ug/l	102		80-120		
Batch number: W092682AA	Sample number(s): 5784243-5784248, 5784250-5784258							
Benzene	N.D.	0.5	ug/l	100		79-120		
Chlorobenzene	N.D.	0.8	ug/l	101		80-120		
Ethylbenzene	N.D.	0.8	ug/l	99		79-120		
Toluene	N.D.	0.7	ug/l	101		79-120		
Xylene (Total)	N.D.	0.8	ug/l	100		80-120		
Batch number: 092681848001	Sample number(s): 5784231-5784235, 5784256-5784257							
Arsenic	N.D.	0.0072	mg/l	103		80-120		
Lead	N.D.	0.0069	mg/l	101		80-120		
Batch number: 092681848004	Sample number(s): 5784236-5784245							
Arsenic	N.D.	0.0072	mg/l	105		89-115		
Lead	N.D.	0.0069	mg/l	98		80-120		
Batch number: 092681848005	Sample number(s): 5784246-5784255							
Arsenic	N.D.	0.0072	mg/l	105		89-115		
Lead	N.D.	0.0069	mg/l	113		80-120		

## Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: W092681AA	Sample number(s): 5784231-5784238, 5784240-5784242 UNSPK: 5784236								
Benzene	106	94	80-126	12	30				
Chlorobenzene	106	94	87-124	12	30				
Ethylbenzene	105	92	71-134	13	30				
Toluene	109	96	80-125	12	30				
Xylene (Total)	105	92	79-125	13	30				
Batch number: W092682AA	Sample number(s): 5784243-5784248, 5784250-5784258 UNSPK: 5784246								
Benzene	109	105	80-126	4	30				
Chlorobenzene	110	106	87-124	4	30				

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: Chevron

Group Number: 1163088

Reported: 09/30/09 at 11:35 AM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethylbenzene	109	105	71-134	4	30				
Toluene	109	106	80-125	3	30				
Xylene (Total)	108	105	79-125	2	30				
Batch number: 092681848001 Sample number(s): 5784231-5784235, 5784256-5784257 UNSPK: P785938 BKG: P785938									
Arsenic	98	105	75-125	7	20	N.D.	N.D.	0 (1)	20
Lead	82	88	75-125	6	20	0.0167	0.0154	8 (1)	20
Batch number: 092681848004 Sample number(s): 5784236-5784245 UNSPK: 5784236 BKG: 5784236									
Arsenic	105	105	75-125	0	20	N.D.	N.D.	0 (1)	20
Lead	97	96	75-125	1	20	N.D.	N.D.	0 (1)	20
Batch number: 092681848005 Sample number(s): 5784246-5784255 UNSPK: 5784246 BKG: 5784246									
Arsenic	119	102	75-125	15	20	N.D.	N.D.	0 (1)	20
Lead	111	104	75-125	7	20	N.D.	N.D.	0 (1)	20

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL by 8260 (water)

Batch number: W092681AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5784231	91	91	95	91
5784232	92	92	95	89
5784233	91	91	95	89
5784234	92	93	95	89
5784235	93	92	94	89
5784236	93	92	95	90
5784237	93	92	96	94
5784238	94	93	96	94
5784240	91	91	95	90
5784241	91	93	95	90
5784242	92	90	95	89
Blank	92	92	95	90
LCS	93	90	96	95
MS	93	92	96	94
MSD	94	93	96	94
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TCL by 8260 (water)

Batch number: W092682AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5784243	90	90	95	89
5784244	93	93	94	89
5784245	91	92	95	89

\*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



## Quality Control Summary

Client Name: Chevron

Group Number: 1163088

Reported: 09/30/09 at 11:35 AM

### Surrogate Quality Control

5784246	91	91	94	89
5784247	92	89	96	94
5784248	92	92	95	94
5784250	92	89	95	89
5784251	93	91	94	89
5784252	93	92	95	88
5784253	93	92	94	89
5784254	92	90	94	87
5784255	94	91	94	87
5784256	90	90	95	90
5784257	91	91	95	90
5784258	91	93	95	90
Blank	90	90	95	91
LCS	92	88	95	94
MS	92	89	96	94
MSD	92	92	95	94
Limits:	80-116	77-113	80-113	78-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1163088 Sample # 5784231-58

**COC #** 211748

Please print. Instructions on reverse side correspond with circled numbers.

<b>1</b> Client: <u>Chelton Cincinnati</u> Acct. #: <u>11494</u> Project Name/#: <u>Barrier Wall 500-617-012</u> PWSID #: <u>NAJICA/17000720</u> Project Manager: <u>Doug Lam</u> P.O. #: Sampler: <u>John Hill</u> Quote #: Name of state where samples were collected: <u>OHIO</u>										<b>4</b> Matrix Potable <input type="checkbox"/> Check if <input type="checkbox"/> NPDES <input type="checkbox"/> Applicable			<b>5</b> Analyses Requested Preservation Codes H N Dissolved Hg, Pb Dissolved Hg, Pb										For Lab Use Only FSC: _____ SCR#: _____ Preservation Codes H=HCl T=Thiosulfate N=HNO <sub>3</sub> B=NaOH S=H <sub>2</sub> SO <sub>4</sub> O=Other See Attached Analytic List				<b>6</b> Temperature of samples upon receipt (if requested)																																																																																																														
<b>2</b> Sample Identification <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Date Collected</th> <th>Time Collected</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Other</th> <th>Total # of Containers</th> <th>H</th> <th>N</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Equipment Bank, 09/17/09</td> <td>9-17-09</td> <td>1020</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> <td rowspan="9">Dissolved Metals are field filtered</td> </tr> <tr> <td>MW-13SS, 09/17/09</td> <td>9-17-09</td> <td>1110</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>MW-13ST, 09/17/09</td> <td>9-17-09</td> <td>1155</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>MW-13SD, 09/17/09</td> <td>9-17-09</td> <td>1340</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>BMW-15, 09/17/09</td> <td>9-17-09</td> <td>1500</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>BMW-17, 09/18/09</td> <td>9-18-09</td> <td>1250</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>BMW-17, 09/18/09 MS/MSD</td> <td>9-18-09</td> <td>1250</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>8</td> <td>6</td> <td>2</td> </tr> <tr> <td>BMW-10, 09/18/09</td> <td>9-18-09</td> <td>1500</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>BMW-20, 09/21/09</td> <td>9-21-09</td> <td>0825</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> </tr> <tr> <td>BMW-21, 09/21/09</td> <td>9-21-09</td> <td>0850</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td>4</td> <td>3</td> <td>1</td> <td>QC Summary Data Package</td> </tr> </tbody> </table>										Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	H	N	Remarks	Equipment Bank, 09/17/09	9-17-09	1020	X				X		4	3	1	Dissolved Metals are field filtered	MW-13SS, 09/17/09	9-17-09	1110	X			X		4	3	1	MW-13ST, 09/17/09	9-17-09	1155	X			X		4	3	1	MW-13SD, 09/17/09	9-17-09	1340	X			X		4	3	1	BMW-15, 09/17/09	9-17-09	1500	X			X		4	3	1	BMW-17, 09/18/09	9-18-09	1250	X			X		4	3	1	BMW-17, 09/18/09 MS/MSD	9-18-09	1250	X			X		8	6	2	BMW-10, 09/18/09	9-18-09	1500	X			X		4	3	1	BMW-20, 09/21/09	9-21-09	0825	X			X		4	3	1	BMW-21, 09/21/09	9-21-09	0850	X			X		4	3	1	QC Summary Data Package			
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<b>7</b> Turnaround Time Requested (TAT) (please circle): <u>Normal</u> Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: _____ Rush results requested by (please circle): Phone Fax <u>E-mail</u> Phone #: <u>513 353 1323</u> Fax #: <u>513 353 4664</u> E-mail address: <u>dlam@trihydro.com</u>										Relinquished by: <u>[Signature]</u> Date <u>9/22/09</u> Time <u>1000</u>		Received by: _____ Date _____ Time _____		<b>9</b> Date _____ Time _____																																																																																																																											
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<b>8</b> Data Package Options (please circle if required) Type I (validation/NJ Reg) TX TRRP-13 Type II (Tier II) MA MCP CT RCP Type III (Reduced NJ) Site-specific QC (MS/MSD/Dup)? Yes No Type IV (CLP SOW) (If yes, indicate QC sample and submit triplicate volume.) Type VI (Raw Data Only) Internal COC Required? Yes / No _____										SDG Complete? Yes No																																																																																																																															



# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1163088 Sample # 5784231-58

**COC #** 211749

Please print. Instructions on reverse side correspond with circled numbers.

<b>1</b> Client: <u>Chevron/Cinacraft</u> Acct. #: <u>11494</u> Project Name/ID: <u>Barrow Well 500-017-012</u> PWSID #: <u>NA/CA/170000120</u> Project Manager: <u>Doug Lem</u> P.O.#: _____ Sampler: <u>John A. H</u> Quote #: _____ Name of state where samples were collected: <u>OHIO</u>				<b>4</b> Matrix <input type="checkbox"/> Potable <input type="checkbox"/> Check if Applicable <input type="checkbox"/> NPDES		<b>5</b> Analyses Requested Preservation Codes H N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										For Lab Use Only FSC: _____ SCR#: _____					
						H N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										Preservation Codes H=HCl T=Thiosulfate N=HNO <sub>3</sub> B=NaOH S=H <sub>2</sub> SO <sub>4</sub> O=Other <u>See Attached Analyte List</u>					
<b>2</b> Sample Identification				<b>3</b> Grab Composite		Soil Water Other		Total # of Containers		Utes PPL Dissolved As Pb		<b>6</b> Remarks Temperature of samples upon receipt (if requested)									
Date Collected Time Collected				Grab Composite		Soil Water Other		Total # of Containers		Utes PPL Dissolved As Pb		Remarks									
MW-136T, 092109 9-21-09 1350 X				X		4 3 1		Dissolved Metals are Field Filtered													
MWD-136D, 092109 9-21-09 1050 X				X		4 3 1															
BMU-2S, 092109 9-21-09 1005 X				X		4 3 1															
MW-137T, 092209 9-22-09 11:55 X				X		4 3 1		QC Summary Data Package													
MU-137I, 092209 MS/MSD 9-22-09 1155 X				X		8 6 2															
BD-1, 092209 9-22-09 — X				X		4 3 1															
BMU-3D, 092209 9-22-09 0915 X				X		4 3 1															
BMU-3T, 092209 9-22-09 1005 X				X		4 3 1															
BMU-3S, 092209 9-22-09 1105 X				X		4 3 1															
MU-137D, 092209 9-22-09 1315 X				X		4 3 1															
<b>7</b> Turnaround Time Requested (TAT) (please circle) <u>Normal</u> Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: _____ Rush results requested by (please circle): Phone Fax <u>E-mail</u> Phone #: <u>5133531323</u> Fax #: <u>5133534164</u> E-mail address: <u>dhane@hydro.com</u>														Relinquished by: <u>[Signature]</u> Date <u>9-22-09</u> Time <u>1600</u>		Received by: _____ Date _____ Time _____					
Relinquished by: _____ Date _____ Time _____														Received by: _____ Date _____ Time _____							
Relinquished by: _____ Date _____ Time _____														Received by: _____ Date _____ Time _____							
Relinquished by: _____ Date _____ Time _____														Received by: _____ Date _____ Time _____							
Relinquished by: _____ Date _____ Time _____														Received by: <u>Mary Gaskin</u> Date <u>9/23/09</u> Time <u>500</u>							
<b>8</b> Data Package Options (please circle if required) Type I (validation/NJ Reg) TX TRRP-13 Yes No Type II (Tier II) MA MCP CT RCP Type III (Reduced NJ) Site-specific QC (MS/MSD/Dup)? Yes No Type IV (CLP SOW) (If yes, indicate QC sample and submit triplicate volume.) Type VI (Raw Data Only) Internal COC Required? Yes / No _____														SDG Complete? Yes No							



# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1163088 Sample # 5784231-58 **COC # 211751**

Please print. Instructions on reverse side correspond with circled numbers.

<b>1</b> Client: <u>Chevron Cincinnati</u> Acct. #: <u>11494</u> Project Name/ #: <u>Barricade 11500-017-012</u> PWSID #: <u>NWRCN7000160</u> Project Manager: <u>Doug Lam</u> P.O. #: _____ Sampler: <u>John Hill</u> Quote #: _____ Name of state where samples were collected: <u>OHIO</u>				<b>4</b> Matrix Potable <input type="checkbox"/> Check if Applicable NPDES <input type="checkbox"/> Water <input type="checkbox"/> Other <input type="checkbox"/>		<b>5</b> Analyses Requested			For Lab Use Only FSC: _____ SCR#: _____	
						Preservation Codes H N H=HCl T=Thiosulfate N=HNO <sub>3</sub> B=NaOH S=H <sub>2</sub> SO <sub>4</sub> O=Other			<b>6</b> Preservation Codes H=HCl T=Thiosulfate N=HNO <sub>3</sub> B=NaOH S=H <sub>2</sub> SO <sub>4</sub> O=Other	
<b>2</b> Sample Identification				<b>3</b> Composite		Total # of Containers		Remarks		
Date Collected Time Collected Grab Composite				Soil Water Other		H N		Temperature of samples upon receipt (if requested)		
BD-2, 092209 9-22-09 — X				X		4 3 1		Dissolved metals are field filtered		
Equipment Blank, 092209 (P) 9-22-09 1500 X				X		4 3 1		QC Summary data package		
Equipment Blank, 092209 9-22-09 1515 X				X		4 3 1		(Diagonal line through table)		
Trip Blank 9-22-09 1700 X				X		2 2		(Diagonal line through table)		
<b>7</b> Turnaround Time Requested (TAT) (please circle): <u>Normal</u> Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: _____ Rush results requested by (please circle): Phone Fax <u>E-mail</u> Phone #: <u>5133531323</u> Fax #: <u>5133534614</u> E-mail address: <u>dame@trigdis.com</u>				Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Date Time Received by: <u>9/26/09</u> <u>1800</u> Date Time Received by: Date Time Received by: Date Time Received by: Date Time Received by:		<b>9</b>		
<b>8</b> Data Package Options (please circle if required) Type I (validation/NJ Reg) TX TRRP-13 Type II (Tier II) MA MCP CT RCP Type III (Reduced NJ) Site-specific QC (MS/MSD/Dup)? Yes No Type IV (CLP SOW) (If yes, indicate QC sample and submit triplicate volume) Type VI (Raw Data Only) Internal COC Required? Yes / No				SDG Complete? Yes No		Date Time Received by: <u>9/23/09</u> <u>900</u>		Date Time Received by:		



Analytical Requests for Groundwater  
Chevron Cincinnati Facility, Hoover, Ohio

**Volatile Organics**

Benzene  
Chlorobenzene  
Ethylbenzene  
Toluene  
Xylenes (total)

LOC  
LIST

**Dissolved Metals- field filtered**

Arsenic  
Lead



## Environmental Sample Administration Receipt Documentation Log

Client/Project: Chevron Cincinnati

Shipping Container Sealed: YES NO

Date of Receipt: 9/23/09

Custody Seal Present \*: YES NO

Time of Receipt: 900

\* Custody seal was intact unless otherwise noted in the discrepancy section

Source Code: 50-1

Package: Chilled Not Chilled

Unpacker Emp. No.: 2316

### Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	0125583	1.3°C	TB	WI	Y	L	
2	↓	3.6°C	↓	↓	↓	↓	
3	<div style="position: relative; height: 150px;"> <span style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border-left: 2px solid black; border-bottom: 2px solid black;"></span> </div>						
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Sample Administration Internal Chain of Custody

Name	Date	Time	Reason for Transfer
<u>Danny Berber</u>	<u>9/23/09</u>	<u>1225</u>	Unpacking <u>Storage</u>
<u>Mary Berber</u>	<u>9/23/09</u>	<u>1447</u>	Place in Storage or <u>Entry</u>
			Entry
			Entry



## Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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